



Strong. Smart. Beautiful.

**ASCENT TRAINER &
ELLIPTICAL
OWNER'S MANUAL**

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CHAPTER 1: IMPORTANT SAFETY INSTRUCTIONS

1.1 BEFORE GETTING STARTED

It is the sole responsibility of the purchaser of Matrix Fitness Systems products to instruct all individuals, whether they are the end user or supervising personnel, on proper usage of the equipment.

It is recommended that all users of Matrix Fitness Systems exercise equipment be informed of the following information prior to its use.

1.2 PROPER USAGE

- Do not use the equipment in any way other than designed or intended by the manufacturer. It is imperative that all Matrix Fitness Systems equipment is used properly to avoid injury.
- Keep hands and feet clear of moving parts at all times to avoid injury.
- Unsupervised children must be kept away from this equipment.
- Do not wear loose clothing while on equipment.

1.3 READ AND SAVE THESE INSTRUCTIONS

This elliptical is intended for commercial use. To ensure your safety and protect the equipment, read all instructions before operating the MATRIX elliptical.

When using an electrical product, basic precautions should always be followed including the following:

DANGER: To reduce the risk of electric shock: Always unplug this equipment from the electrical outlet immediately after using and before cleaning.

WARNING: To reduce the risk of burns, fire, electrical shock or injury to persons that may be associated with using this product.

- An appliance should never be left unattended when plugged in. Unplug from outlet when not in use and before putting on or taking off parts.
- This product must be used for its intended purpose described in this lower case owner's manual. Do not use other attachments that are not recommend by the manufacturer. Attachments may cause injury.
- To prevent electrical shock, never drop or insert any object into any opening
- Do not remove the console covers. Service should only be done by an authorized service technician.
- Never operate the elliptical with the air opening blocked. Keep the air opening clean, free of lint and hair.
- Never operate product if it has a damaged cord or plug, if it is working properly, if it has been damaged, or immersed in water. Return the unit to a service center for examination and repair.
- Do not carry this unit by it's supply cord or use the cord as a handle.

- Keep any power cord away from heated surfaces.
- Close supervision is necessary when elliptical is used by or near children or disable persons.
- Do not use outdoors
- Do not operate where aerosol (spray) products are being used or when oxygen is being administered.
- To disconnect, turn all controls to the off position, then remove plug from outlet.
- Connect this elliptical to a properly grounded outlet only.
- This unit is not equipped with a free wheel. Pedal speed should be reduced in a controlled manner.
- Care should be used when mounting or dismounting the equipment. Before mounting or dismounting move the pedal on the mounting or dismounting side to its lowest position and bring the machine to a complete stop.

CAUTION: If you experience chest pain, nausea, dizziness or shortness of breath, STOP exercising immediately and consult a physician before continuing.

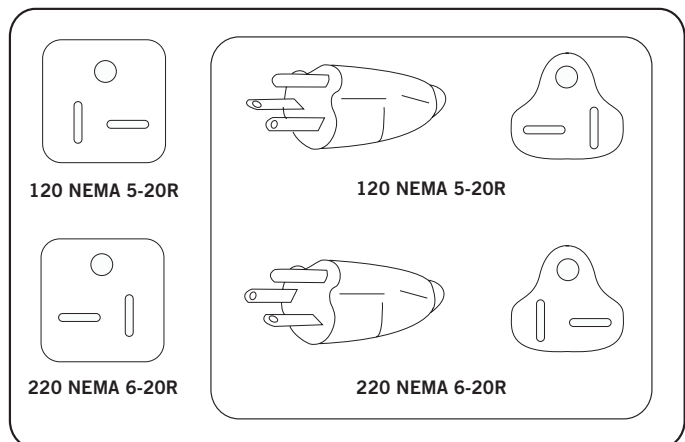
1.4 ELECTRICAL REQUIREMENTS

The Matrix Elliptical is designed to be self-contained and does not require an external power supply to operate.

The battery needs to be charged for 3-4 hours when first installed. Until the battery is fully charged, the 30 second pause feature may not function fully. The charging does not need to be continuous for 3-4 hours, but over combined workouts equaling 3-4 hours.

The Ascent Trainer does require an external AC power source.

For your safety and Ascent performance, the ground on this circuit must be non-looped. Please refer to NEC article 210-21 and 210-23. The Ascent Trainer is provided with a power cord with a plug listed below and requires the listed outlet. Any alterations of this power cord could void all warranties of this product. Multiple Ascent trainers can be powered on one dedicated circuit. (3 units per 15 Amp and 4 units per 20 Amp dedicated circuit.)



1.5 DEDICATED CIRCUIT/ELECTRICAL REQUIREMENT INFO

All Matrix Ascent Trainers require the use of a 15 amp or 20 amp “dedicated circuit,” with a non-looped (isolated) neutral/ground, for the power requirement. Quite simply this means that each outlet you plug Ascent Trainers into should not have anything else running on that same circuit besides other Ascent trainers (up to 3 per 15 amp circuit and 4 per 20 amp circuit). The easiest way to verify this is to locate the main circuit breaker box, and turn off the breaker(s) one at a time. Once a breaker has been turned off, the only thing that should not have power to it are the Ascent trainers in question. No lamps, vending machines, fans, sound systems, or any other item should lose power when you perform this test.

Non-looped (isolated) neutral/grounding means that each circuit must have an individual neutral/ground connection coming from it, and terminating at an approved earth ground. You cannot “jumper” a single neutral/ground from one circuit to the next.

In addition to the dedicated circuit requirement, the proper gauge wire must be used from the circuit breaker box, to each outlet that will have the maximum number of units running off of it. If the distance from the circuit breaker box, to each outlet, is 100 ft or less, then 12 gauge wire may be used. For any distance greater than 100 ft from the circuit breaker box to the outlet, 10 gauge wire must be used.

1.6 GROUNDING INSTRUCTIONS

The elliptical must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. The elliptical is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances. If the user does not follow these grounding Instructions, the user could void the Matrix limited warranty.

DANGER: Improper connection of the equipment-grounding conductor can result in the risk of electric shock. Check with a qualified electrician or serviceman if the user is in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product if it will not fit the outlet; have a proper outlet installed by a qualified technician.

2.1 RECOMMENDED CLEANING TIPS

Preventative maintenance and daily cleaning will prolong the life and look of your MATRIX Ascent Trainer or Elliptical.

Please read and follow these tips.

- Position the equipment away from direct sunlight. The intense UV light can cause discoloration on plastics.
- Locate your equipment in an area with cool temperatures and low humidity.
- Clean with a soft 100% cotton cloth.
- Clean with soap and water or other non-ammonia based all purpose cleaners.
- Wipe foot pads, handles, heart rate grips, and handlebars clean after each use.
- Do not pour liquids directly onto your equipment. This can cause damage to the equipment and in some cases electrocution.
- Check pedal motion and stability.
- Adjust leveling feet when equipment wobbles or rocks.
- Maintain a clean area around equipment, free from dust and dirt.

2.2 CHECK FOR DAMAGED PARTS

DO NOT use any equipment that is damaged or has worn or broken parts. Use only replacement parts supplied by Matrix Fitness Systems.

MAINTAIN LABELS AND NAMEPLATES. Do not remove labels for any reason. They contain important information. If unreadable or missing, contact Matrix Fitness Systems for a replacement. 1-866-693-4863, www.matrixfitness.com

MAINTAIN ALL EQUIPMENT Preventative maintenance is the key to smooth operating equipment. Equipment needs to be inspected at regular intervals. Defective components must be replaced immediately. Improperly working equipment must be kept out of use until it is repaired. Ensure that any person(s) making adjustments or performing maintenance or repair of any kind is qualified to do so. Matrix Fitness Systems will provide service and maintenance training at our corporate facility upon request or in the field if proper arrangements are made.

CHAPTER 2: PREVENTATIVE MAINTENANCE

2.3 CARE AND MAINTENANCE INSTRUCTIONS

In order to maximize life span, and minimize down time, all MATRIX equipment requires regular cleaning, and maintenance items performed on a scheduled basis. This section contains detailed instructions on how to perform these items, the frequency of which they should be done, and a check list to sign off each time service is completed for a specific machine. Some basic tools and supplies will be necessary to perform these tasks which include (but may not be limited to):

Metric Allen wrenches
#2 Phillips head screwdriver
Adjustable wrench
Torque wrench (capability to read foot lbs, and inch lbs)
Lint free cleaning cloths
Teflon based spray lubricant
Mild, water soluble, detergent – such as “Simple Green”, or other Matrix approved product
Teflon based spray lubricant such as “Super Lube”, or other Matrix approved product
Vacuum cleaner w/extendable hose and crevasse tool attachment

Please find the worksheet sample for our equipment provided in this manual and make copies as needed, keeping them up to date as the required service/maintenance items are performed. It is critical that you also log the accumulated (total) amount of miles or running hours on the equipment each time service or maintenance is performed.

You may periodically see addendums to this document, as the Matrix Technical Support Team identifies items that require specific attention, the latest version will always be available on the Matrix website, matrixfitness.com

DAILY MAINTENANCE ITEMS

- 1) Clean entire machine use water and mild detergent such as “Simple Green”, or other Matrix approved solution (cleaning agents should be alcohol and ammonia free).

QUARTERLY MAINTENANCE ITEMS

- 1) Check all connecting joint areas for tightness of bolt assemblies.
- 2) Ensure that there is little, or no free play at all joint assemblies once bolts have been tightened. Installation of washer kits may be required if free play does not come out from tightening bolts.
- 3) Remove plastic covers, and lubricate ball joint where the Link Arm and Handlebar join together. A grease gun, with a needle fitting adapter is required for this (Matrix recommends using Superlube brand grease with PTFE (Teflon) additive).
- 4) Remove plastic covers, and lubricate Acme screw on left and right incline motors (Matrix recommends using Superlube brand grease with PTFE {Teflon} additive). See section 9.11 for incline motor access instructions.

2.4 PREVENTATIVE MAINTENANCE CHECKLIST

Facility: _____

MAKE:	MODEL:	S/N
LOCATION:	TECHNICIAN:	DATE:

Inspect power cords	___	Check resistance system	___	Clean/lube guide rods	___
Check E-stop cord/button	___	Lubricate pivot points	___	Inspect belt/cable assy.	___
Vacuum/clean under cover	___	Check connecting joints	___	Check locking pins	___
Check motor drive belt	___	Remove covers, check belts	___	Check pulleys	___
Check running belt	___	Check pedal & crank	___	Inspect upholstery	___
Flip/replace deck	___	Check/lube seat adjustment	___	Check/tighten hardware	___
De-wax rollers	___	Verify electronics operation	___	Lubricate Acme screw	___
Notes/comments _____					

MAKE:	MODEL:	S/N
LOCATION:	TECHNICIAN:	DATE:

Inspect power cords	___	Check resistance system	___	Clean/lube guide rods	___
Check E-stop cord/button	___	Lubricate pivot points	___	Inspect belt/cable assy.	___
Vacuum/clean under cover	___	Check connecting joints	___	Check locking pins	___
Check motor drive belt	___	Remove covers, check belts	___	Check pulleys	___
Check running belt	___	Check pedal & crank	___	Inspect upholstery	___
Flip/replace deck	___	Check/lube seat adjustment	___	Check/tighten hardware	___
De-wax rollers	___	Verify electronics operation	___	Lubricate Acme screw	___
Notes/comments _____					

CHAPTER 3: USING MANAGER PREFERENCE

3.1 USING MANAGER PREFERENCE MODE

Your Matrix Elliptical is designed to allow you to customize settings for your preferences and diagnostics. The Manager Mode can only be accessed while the Elliptical is powered up. Follow the instructions to adjust the Elliptical computer to your desired setting.

STEP 1: Power up the Elliptical and hold the **UP** and **DOWN ARROW KEYS** for 3 seconds. The word “Manager” will appear in the alphanumeric window and will enter into the Manager setting automatically after 3 seconds. Continue to pedal until finished.

STEP 2: Select information you would like to view or change from the following list by using the **UP** or **DOWN ARROWS**. Press **SELECT**.

Manager mode will allow you to view and set the following:

DISPLAY	CODE: INFORMATION	USER DEFINABLE	DEFAULT VALUE	MIN.	MAX.
Manager	P0: Maximum program time	Y	95 min	5	95
	P1: Default time	Y	20 min	5	95
	P2: Default level	Y	L1	L1	L20
	P3: Default weight	Y	150 lbs	60lbs	400lbs
	P4: Speed	Y	Miles	Miles	KM
	P5: Machine	Y	BI	BI	RE,EL
	P6: Cardio Entertainment	Y	On	On	OFF
	P7: Accumulated Distance	Y	On	On	OFF
	P8: Accumulated Time				
	P9: Software Version				

STEP 3: Use **UP** or **DOWN ARROWS** to increase or decrease values.

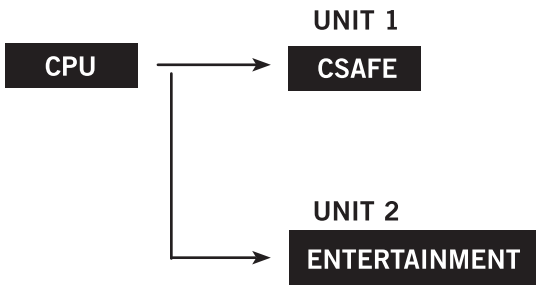
STEP 4: Press **START** to save and enter selected values and exit to **STEP 2**.

STEP 5: Exit by pressing **START**. Screen will reset to start up.

3.2 USING CSAFE

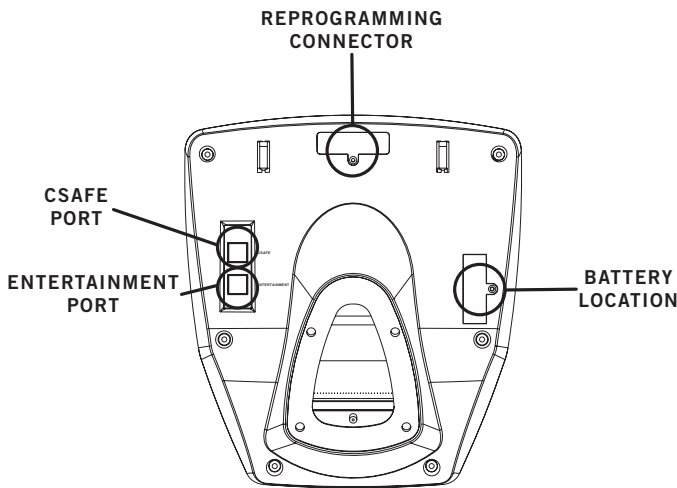
Matrix is the leader in entertainment availability. On the back of the console are two **RJ45** receptacles. They are marked **CSAFE** and **ENTERTAINMENT**.

Use the **CSAFE** port to plug in a **CSAFE** device using an **RJ45** connector. The connection is as follows:



3.3 USING (BACK SIDE) ACCESS LAYOUT:

Below is a layout to all of the access ports on the back of your Matrix Console.



CHAPTER 4: USING THE E3xc CONSOLE

4.1 CONSOLE DESCRIPTION



PROGRAMS: Simple program selection buttons make Matrix Cycles easy to use. Matrix Cycles feature eight programs.

START/QUICK START: One Touch Quick Start and Start any time during preference selection.

UP/DOWN: Easy information and level selection.

SELECT/SELECT SCREEN/ RESET: This multi-function button enters information when setting up programming options, toggles information displayed and if held down for 5 seconds, resets the Cycle to Start-up mode.

4.2 MANUAL OPERATION

QUICK START: start pedaling and press “GO” to begin your workout. All energy expenditure values will be calculated using the default weight measurement.

MANUAL MODE: Manual is a workout that allows you to manually adjust the resistance at any time. The manual workout also contains a setup screen which allows you to input your weight to help calculate a more accurate caloric burn rate.

- Press “**MANUAL**”.
- Enter your desired “**TIME**” using the **ARROW KEYS** or **NUMBER KEYPAD** and press **ENTER**.
- Enter your desired “**LEVEL**” using the **ARROW KEYS** or **NUMBER KEYPAD** and press **ENTER**.
- Enter your “**WEIGHT**” using the **ARROW KEYS** or **NUMBER KEYPAD** and press **ENTER**.

4.3 OPERATING LEVEL BASED PROGRAMS

“Your Matrix Cycle offers versatile programs to keep the user motivated. The following instructions will guide you through the simple steps to select Intervals, Rolling, Fat Burn and Random workouts.

- Press the Workout Button of choice.
- Enter your desired “**TIME**” using the **ARROW KEYS** or **NUMBER KEYPAD** and press **ENTER**.
- Enter your desired “**LEVEL**” using the **ARROW KEYS** or **NUMBER KEYPAD** and press **ENTER**.
- Enter your “**WEIGHT**” using the **ARROW KEYS** or **NUMBER KEYPAD** and press **ENTER**.

4.4 USER DEFINED PROGRAMS - RANDOM

RANDOM - there are 20 workout profiles in **RANDOM** mode. Profile will change each time **RANDOM** key is pressed. Select a workout profile, follow user information prompts or press **QUICK START** key to begin.

- STEP 1:** Select the **PROGRAM** button.
Press **SELECT** or wait 5 seconds.
Selecting **START** will start program.
- STEP 2:** Select **TIME** by using the **UP** or **DOWN** arrow keys.
Press **SELECT** or wait 5 seconds.
Selecting **START** will start program.
- STEP 3:** Select **LEVEL** by using the **UP** or **DOWN** arrow keys.
You can change the level at any time during workout.
Press **SELECT** or wait 5 seconds.
Selecting **START** will start program.
- STEP 4:** Select weight by using the **UP** or **DOWN** arrow keys.
Press **START** or **SELECT** to begin workout.
Display, Starting 3, Starting 2, Starting 1.

CHAPTER 4: USING THE E3xc CONSOLE

4.5 FIT TEST

This test measures cardiovascular fitness and proves an estimated sub-maximal VO₂ result. It is based on power output according to ACSM standards and was developed by the Cooper Institute (© www.cooperinstitute.org)

User RPMs must remain between 60-80 RPM during the test.

The test will end when the user can no longer maintain this speed. Use of a heart rate strap is optional but provides more data.

The test starts at a low intensity level and gradually increases in intensity (difficulty) every 2 minutes. As it increases, the user must maintain 60-80RPM to advance to the next level. The test could take upwards of 30+ minutes for very fit individuals. Once the test ends a recovery period (cool down) will begin and the user's results are calculated and displayed. Results are based on the following:

- 10-20% - Well Below Average
- 30-40% - Below Average
- 50% - Average
- 60-70% - Above Average
- 80-90% - Well Above Average

Percentile Values for Maximal Aerobic Power					
Age					
Percentile	20-29	30-39	40-49	50-59	60+
Men					
90	51.4	50.4	48.2	45.3	42.5
80	48.2	46.8	44.1	41.0	38.1
70	46.8	44.6	41.8	38.5	35.3
60	44.2	42.4	39.9	36.7	33.6
50	42.5	41.0	38.1	35.2	31.8
40	41.0	38.9	36.7	33.8	30.2
30	39.5	37.4	35.1	32.3	28.7
20	37.1	35.4	33.0	30.2	26.5
10	34.5	32.5	30.9	28.0	23.1
Women					
90	44.2	41.0	39.5	35.2	31.2
80	41.0	38.6	36.3	32.3	29.4
70	38.1	36.7	33.8	30.9	27.2
60	36.7	34.6	32.3	29.4	25.8
50	35.2	33.8	30.9	28.2	24.5
40	33.8	32.3	29.5	26.9	23.8
30	32.3	30.5	28.3	25.5	22.8
20	30.6	28.7	26.5	24.3	20.8
10	28.4	26.5	25.1	22.3	20.8

CHAPTER 4: USING THE E3xc CONSOLE

4.6 HEART RATE CONTROL

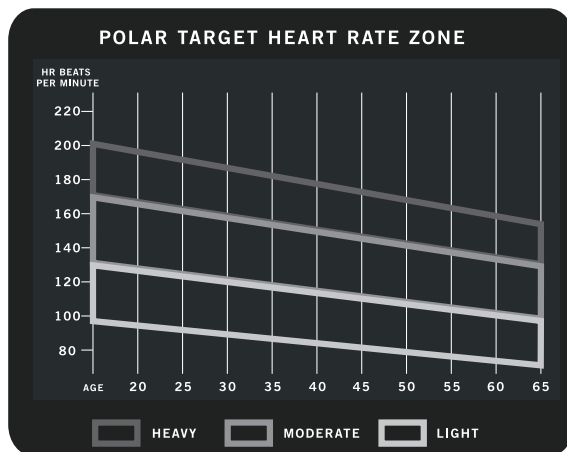
Your Matrix Ascent Trainer / Elliptical offers a heart rate control workout mode. The heart rate control workout mode allows the user to program their desired heart rate zone and the machine will adjust the resistance automatically based on the user's heart rate. The heart rate zone is calculated using the following equation: $(220 - \text{Age}) * \% = \text{target heart rate zone}$. The user must wear a telemetric heart rate monitor or continually hold onto the contact heart rate grips for this workout."

- Press "**TARGET HEART RATE**".
- Enter your "**AGE**" using the **ARROW KEYS** or **NUMBER KEYPAD** and press **ENTER**.
- Enter your desired percentage of maximum heart rate using the **ARROW KEYS** or **NUMBER KEYPAD** and press **ENTER**.
- Enter your desired "**TIME**" using the **ARROW KEYS** or **NUMBER KEYPAD** and press **ENTER**.
- Enter your "**WEIGHT**" using the **ARROW KEYS** or **NUMBER KEYPAD** and press **ENTER** (user weight is used to calculate the caloric expenditure during the workout).

4.7 CONSTANT WATTS

CONSTANT WATTS workout is a unique program that allows you to vary your cadence or RPM and the machine's resistance will adjust accordingly to your selected goal. The quicker you stride the less resistance for the goal selected.

- Press "**CONSTANT WATTS**".
- Enter your desired "**WATT**" using the **ARROW KEYS** or **NUMBER KEYPAD** and press **ENTER** (25 – 525).
- Enter your desired "**TIME**" using the **ARROW KEYS** or **NUMBER KEYPAD** and press **ENTER**.
- Enter your "**WEIGHT**" using the **ARROW KEYS** or **NUMBER KEYPAD** and press **ENTER**.



CHAPTER 5: USING THE A3x CONSOLE

5.1 CONSOLE DESCRIPTION

All programs follow the same basic steps.

- Select program key.
- Enter user information (age, weight).
- Choose workout time.
- Choose resistance level.
- Select **START**.



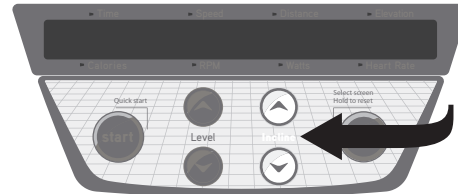
Program selection can be changed at any time during a workout. This means that the user can switch between **RANDOM**, **MANUAL** or several programs without losing accumulated workout time or data.

- However, the console must be reset before starting **FIT TEST**, **TARGET HR**, **AND CONSTANT WATTS** programs.

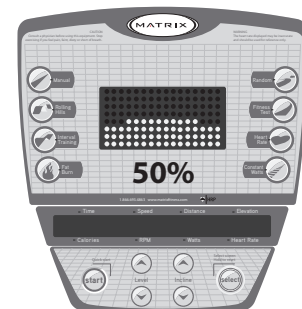
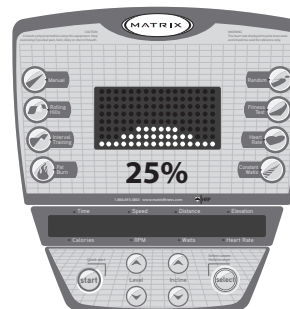
5.2 INCLINE FUNCTION (ASCENT TRAINER ONLY)

Changing the incline will produce a wide variety of challenging workouts. At 0 incline, you can expect a smooth, easy and low-impact pedal motion. At higher incline levels, longer stride and higher step-up challenge the user with a more focused glute workout.

- How the incline works A3x - by pressing the **UP** elevation arrow key (in white) both incline arms pivot towards the rear of the machine. This increases both stride length and step on height.



- Incline settings - There are 20 incline levels. One key press will change the incline in 5% increments. The console will display 0-100, which represents total percentage of incline. LED display 25 is 25% of total incline, 50 is 50% of the total incline and so on. Upper LED changes on each key press, showing incline changes.



CHAPTER 5: USING THE A3x CONSOLE

5.3 QUICK START

Press to immediately begin workout. Workout, resistance level and incline level will automatically go to default settings (see manager mode for default settings). QUICK START will not prompt the user for age, weight or level settings.

5.4 MANUAL

Manual allows the user to input more information while defining their own workout. Calorie expenditure will be more accurate when inputting information in **MANUAL** than using **QUICK START**.

- STEP 1:** Select the **MANUAL** button.
Press **SELECT** or wait 5 seconds.
Selecting **START** will start program.
- STEP 2:** Select **TIME** by using the **UP** or **DOWN** arrow keys.
Press **SELECT** or wait 5 seconds.
Selecting **START** will start program.
- STEP 3:** Select **LEVEL** by using the **UP** or **DOWN** arrow keys.
You can change the level at any time during workout.
Press **SELECT** or wait 5 seconds.
Selecting **START** will start program.
- STEP 4:** Select weight by using the **UP** or **DOWN** arrow keys.
Press **START** or **SELECT** to begin workout.
Display, Starting 3, Starting 2, Starting 1.

5.5 USER DEFINED PROGRAMS - ROLLING, INTERVAL, FATBURN & RANDOM

RANDOM - there are 20 workout profiles in **RANDOM** mode. Profile will change each time **RANDOM** key is pressed. Select a workout profile, follow user information prompts or press **QUICK START** key to begin.

- STEP 1:** Select the **PROGRAM** button.
Press **SELECT** or wait 5 seconds.
Selecting **START** will start program.
- STEP 2:** Select **TIME** by using the **UP** or **DOWN** arrow keys.
Press **SELECT** or wait 5 seconds.
Selecting **START** will start program.
- STEP 3:** Select **LEVEL** by using the **UP** or **DOWN** arrow keys.
You can change the level at any time during workout.
Press **SELECT** or wait 5 seconds.
Selecting **START** will start program.
- STEP 4:** Select weight by using the **UP** or **DOWN** arrow keys.
Press **START** or **SELECT** to begin workout.
Display, Starting 3, Starting 2, Starting 1.

5.6 FIT TEST

This test measures cardiovascular fitness and proves an estimated sub-maximal VO2 result. It is based on power output according to ACSM standards and was developed by the Cooper Institute (© www.cooperinstitute.org)

User RPMs must remain between 60-80 RPM during the test.

The test will end when the user can no longer maintain this speed. Use of a heart rate strap is optional but provides more data.

The test starts at a low intensity level and gradually increases in intensity (difficulty) every 2 minutes. As it increases, the user must maintain 60-80RPM to advance to the next level. The test could take upwards of 30+ minutes for very fit individuals. Once the test ends a recovery period (cool down) will begin and the user's results are calculated and displayed. Results are based on the following:

- 10-20% - Well Below Average
- 30-40% - Below Average
- 50% - Average
- 60-70% - Above Average
- 80-90% - Well Above Average

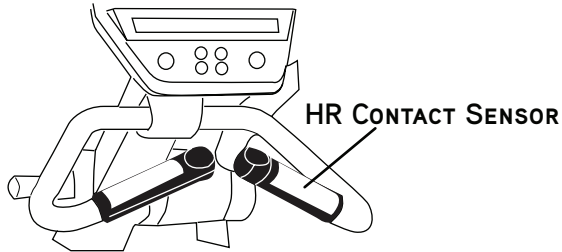
Percentile Values for Maximal Aerobic Power					
Age					
Percentile	20-29	30-39	40-49	50-59	60+
Men					
90	51.4	50.4	48.2	45.3	42.5
80	48.2	46.8	44.1	41.0	38.1
70	46.8	44.6	41.8	38.5	35.3
60	44.2	42.4	39.9	36.7	33.6
50	42.5	41.0	38.1	35.2	31.8
40	41.0	38.9	36.7	33.8	30.2
30	39.5	37.4	35.1	32.3	28.7
20	37.1	35.4	33.0	30.2	26.5
10	34.5	32.5	30.9	28.0	23.1
Women					
90	44.2	41.0	39.5	35.2	35.2
80	41.0	38.6	36.3	32.3	31.2
70	38.1	36.7	33.8	30.9	29.4
60	36.7	34.6	32.3	29.4	27.2
50	35.2	33.8	30.9	28.2	25.8
40	33.8	32.3	29.5	26.9	24.5
30	32.3	30.5	28.3	25.5	23.8
20	30.6	28.7	26.5	24.3	22.8
10	28.4	26.5	25.1	22.3	20.8

CHAPTER 5: USING THE A3x CONSOLE

5.7 TARGET HR

The A3x has digital contact and wireless heart rate monitoring capabilities as standard equipment.

- To use heart rate monitor, locate the metal sensors located on the fixed handlebars.



Hold the grips for a minimum of 10 seconds. Your heart rate (or HR) will display in the lower right hand corner of the alphanumeric LED.

Follow these easy steps to enter into the Heart Rate Program.

- STEP 1:** Select the **TARGET HR** button.
Press **SELECT** or wait 5 seconds.
Selecting **START** will start program.
- STEP 2:** Select **AGE** by using the **UP** or **DOWN** arrow keys.
Press **SELECT** or wait 5 seconds.
Selecting **START** will start program.
- STEP 3:** Select **PERCENT** by using the **UP** or **DOWN** arrow keys.
Press **SELECT** or wait 5 seconds.
Selecting **START** will start program.
- STEP 4:** Select **TIME** by using the **UP** or **DOWN** arrow keys.
Press **SELECT** or wait 5 seconds.
Selecting **START** will start program.
- STEP 5:** Select **WEIGHT** by using the **UP** or **DOWN** arrow keys.
Press **START** or **SELECT** to begin workout.
Display, Starting 3, Starting 2, Starting 1.

Heart rate protocols.

- HR is within 10 BPM (beats per minute) of target, upper LED display will show a heart.
- HR is a greater or less than 10 BPM of target, resistance level will increase or decrease every 10 seconds.
- HR is greater than 14 BPM of target, resistance level will drop to 30%.
- HR is greater than 10 BPM of target, lower LED will display:
"WARNING HR ABOVE TARGET"
- HR is greater than 20 BPM, program immediately ends.

5.8 CONSTANT WATTS

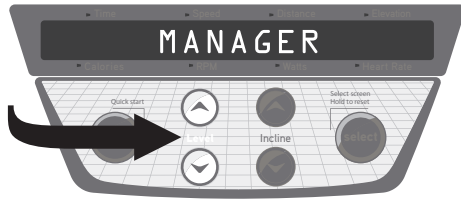
Resistance level is set by the user and constantly changes to reflect stride speed. As stride speed (**SPM**) increases, resistance decreases while output wattage stays the same. In turn, if stride speed decreases then resistance increases.

- STEP 1:** Select **WATTS** by using the **UP** or **DOWN** arrow keys.
Press **SELECT** or wait 5 seconds.
Selecting **START** will start program.
- STEP 2:** Select **TIME** by using the **UP** or **DOWN** arrow keys.
Press **SELECT** or wait 5 seconds.
Selecting **START** will start program.
- STEP 3:** Select **WEIGHT** by using the **UP** or **DOWN** arrow keys.
Press **START** or **SELECT** to begin workout.
Display, Starting 3, Starting 2, Starting 1.

CHAPTER 6: PROGRAMMING & ENGINEERING MODE

6.1 USING MANAGER MODE

- To enter manager mode, hold the **UP** and **DOWN** level keys for three seconds until “**MANAGER**” appears on the middle LED display.



- Press the **UP** and **DOWN** elevation keys to scroll between program screens.
- Press **SELECT** to modify program setting.
- Press **UP** or **DOWN** level keys to change value.
- Press **QUICK START** to save setting.
- Press **QUICK START** again to exit manager mode.
(example changing default time from 20:00 - 30:00 minutes).

STEP 1 Hold LEVEL keys.



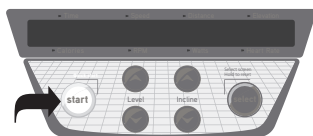
STEP 2 Press SELECT key.



STEP 3 Press up LEVEL key.



STEP 4 Press QUICKSTART key 3 times.



6.2 MANAGER SCREEN DESCRIPTIONS

- **P0: Maximum program time** -
Sets the total run time of any program.
- **P1: Default workout time** -
Workout time when **QUICK START** is pressed or when no time is selected during program set up.
- **P2: Default resistance level** -
Starting resistance when **QUICK START** is pressed or no resistance level is selected during program set up.
- **P3: Default user weight** -
Weight used for program calorie expenditure calculations.
- **P4: Speed Units** - Display value in miles or kilometers.
- **P5: Machine Type** -
The Console is shared on the A3x. A3x default setting is “**SWING**”.
- **P6: Console beep on / off** - Confirmation beeps can be turned on or off.
- **P7: Accumulated distance** - Total distance of all programs.
- **P8: Accumulated time** - Total accumulated program time displayed in hours.
- **P9: Display language** -
Select between English, Spanish, French Italian, Dutch and German.
- **P10: Software version** -
Current version of software. Refer to this when calling Matrix Technical Service.
- **P11: Incline calibration (A3x only)** -
Default display is **OFF**. Selecting **ON** will automatically calibrate the incline motor (s) to factory settings. Use this feature when actual elevation does not match console display.
- **P12: Incline Reset (A3x only)** -
This is a software feature that resets machine elevation to 0 degrees after 30 seconds of user inactivity. During incline reset, movement can be stopped by pressing any console key. Display will scroll “**HOLD SELECT TO RESUME**”. To resume reset to 0 degrees, hold “**SELECT**” key for three seconds.
- **P13: Default incline level (A3x only)** -
Starting incline level at each program start except FIT TEST. Factory setting is 10%. In FIT TEST, elevation is set to 0%.
- **P14: Error Code** -
Console will record up to three errors. Error codes are stored permanently unless reset by a technician. To reset error codes, hold **MANUAL** and **RANDOM** keys for three seconds. Refer to these error codes when calling Matrix technical service for assistance.
- **P15: LCB Version** -
Display will show LCB.VER XX YYY.
XX is machine type.
YYY is version number.

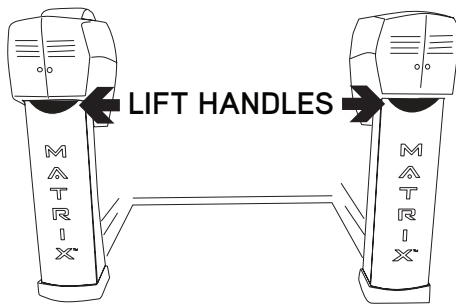
CHAPTER 6: PROGRAMMING & ENGINEERING MODE

CODE: INFORMATION	DEFAULT	MIN	MAX
P0: Maximum program time -	95 min	10	95
P1: Default workout time -	20 min	10	MAX
P2: Default resistance level -	1	1	25
P3: Default user weight -	150 lbs. /75 kg	80	400
P4: Speed units -	mi		
P5: Machine Type -		Swing	Ramp
P6: Console beep on / off -	on		
P7: Accumulated distance -			
P8: Accumulated time -			
P9: Display language -	English		
P10: Software version -			
P11: Incline calibration -			
P12: Incline reset -	on		
P13: Default incline level -	10	0	100
P14: Error Code -			
NOTE: DEFAULT TIME will update to the same as MAX TIME if MAX TIME is less than DEFAULT TIME.			

CHAPTER 7: MOVING THE UNIT

7.1 A3x ASCENT TRAINER

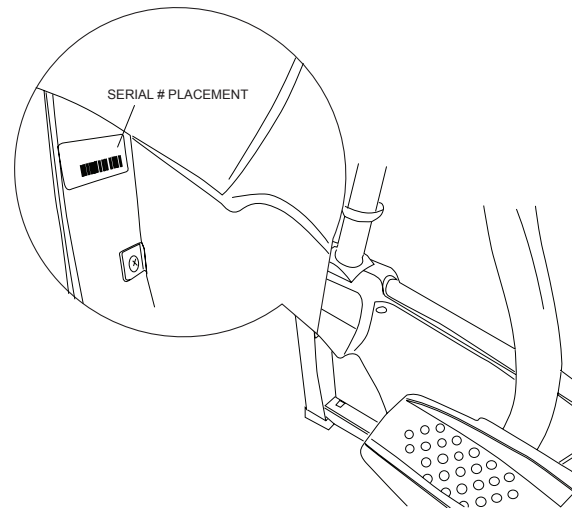
A3x - Two hand holds are located just above the MATRIX logo on the rear legs.



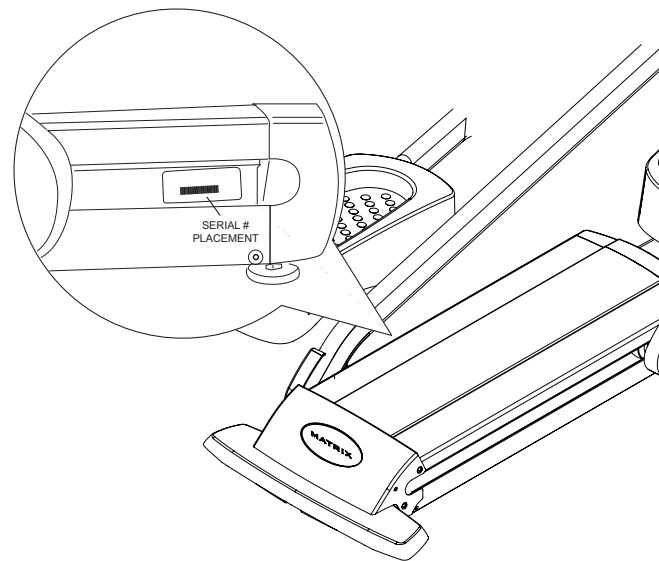
The A3x weighs 390lbs. To avoid injury to the user and the unit, be sure to have proper assistance to move the unit.

CHAPTER 8: SERIAL NUMBER LOCATION

8.1 A3x ASCENT TRAINER

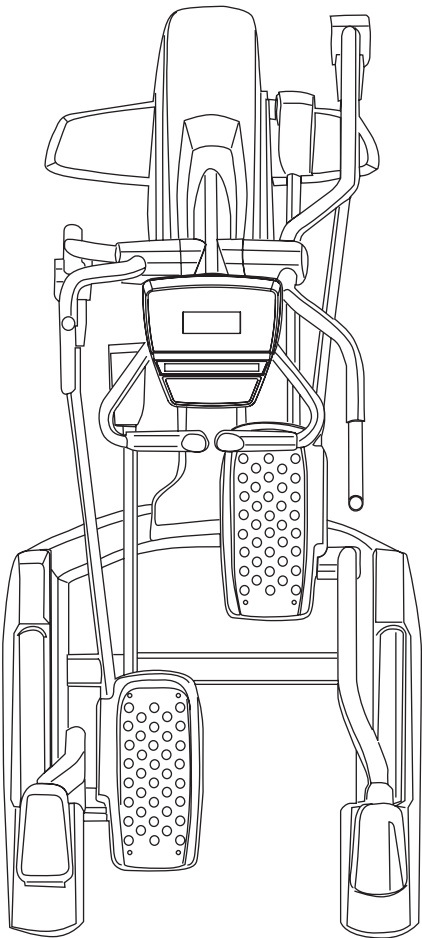


8.2 E3xc ELLIPTICAL



CHAPTER 9: A3X SPECIFICATIONS AND ASSEMBLY STEPS

9.1 A3x ASCENT TRAINER SPECIFICATIONS



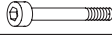
PRODUCT NAME		A3x-01
USER INTERFACE		
STRIDE LENGTH		21 - 24"
INCLINE RANGE		30°
CONSTANT RATE OF ACCELERATION		YES
CONTACT HEART RATE SENSORS		YES
TELEMETRIC HEART RATE RECEIVER		YES
REPLACEABLE FOOTPEDAL INSERTS		YES
Q-FACTOR		3.75"
HANDLE BAR DESIGN		MUTLI-POSITION DUAL ACTION AND ERGO-BEND STATIONARY
RESISTANCE SYSTEM		
TECHNOLOGY		JID HYBRID ECB
POWER REQUIREMENTS		120v - 220v
MINIMUM WATTS		15
MAXIMUM WATTS		600
CONSOLE		
DISPLAY TYPE		LED
DISPLAY FEEDBACK		INCLINE, TIME, SPEED, DISTANCE, CALORIES, WATTS, LEVEL, HEARTRATE, RPM
PROGRAMS		HEART RATE, CONSTANT WATTS, MANUAL, RANDOM, INTERVAL, FAT BURN, ROLLING HILLS
RESISTANCE LEVELS		25
ELEVATION LEVELS		20
ONE-BUTTON QUICK START		YES
CSAFE		YES
PAUSE TIME		30 SECONDS
ON-THE-FLY PROGRAM CHANGE		YES
FULL COURSE SCREEN VIEW		YES
ENTERTAINMENT		FITCONNEXION™ OPTION
TECHNICAL SPECIFICATIONS		
OVERALL DIMENSIONS		80"L x 34.5"W x 72"H
MAXIMUM USER WEIGHT		400 LBS
WEIGHT		390 LBS
SHIPPING WEIGHT		434 LBS
TRANSPORT WHEEL		YES

A3x • ASCENT

CHAPTER 9: A3x SPECIFICATIONS AND ASSEMBLY STEPS

9.2 A3x ASCENT TRAINER FASTENERS

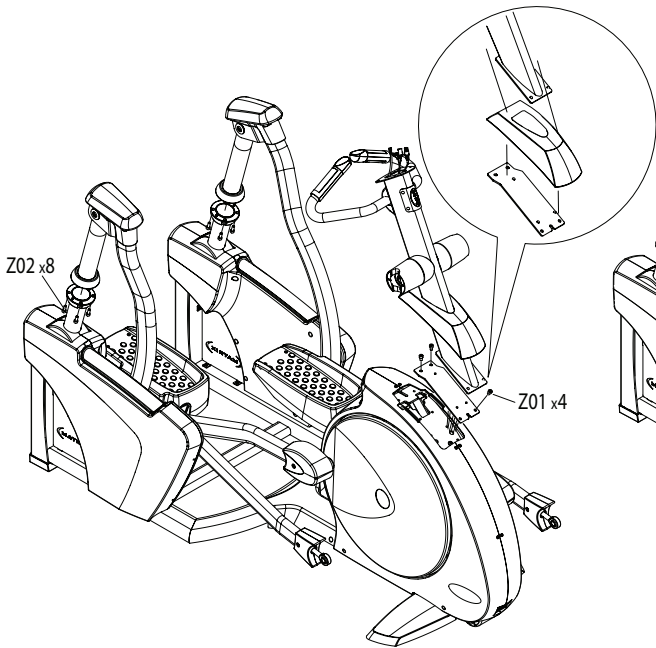
A3x • ASCENT

QTY	PART #	SKETCH	DESCRIPTION	HARDWEAR BAG
04	Z01		HEX SOCKET HEAD CAP (M8 x 15L)	YELLOW
08	Z02		HEX SOCKET HEAD CAP (M8 x 20L)	BLACK
06	Z03		CROSS TRUSS HEAD (M5 x 10L)	WHITE
04	Z04		HEX SOCKET HEAD CAP (M8 x 65L)	WHITE
02	Z05		HEX SOCKET HEAD CAP (M8 x 55L)	WHITE
02	Z06		FLAT WASHER (8.2 x 16.0 x 1.0T)	WHITE
02	Z07		NYLON NUT (M8 x 1.25P)	WHITE
04	Z08		AXLE	WHITE
02	Z34		HEX SOCKET HEAD CAP (M8 x 25L)	BLUE
04	N51		CROSS TRUSS HEAD (M5 x 8L)	Included in console

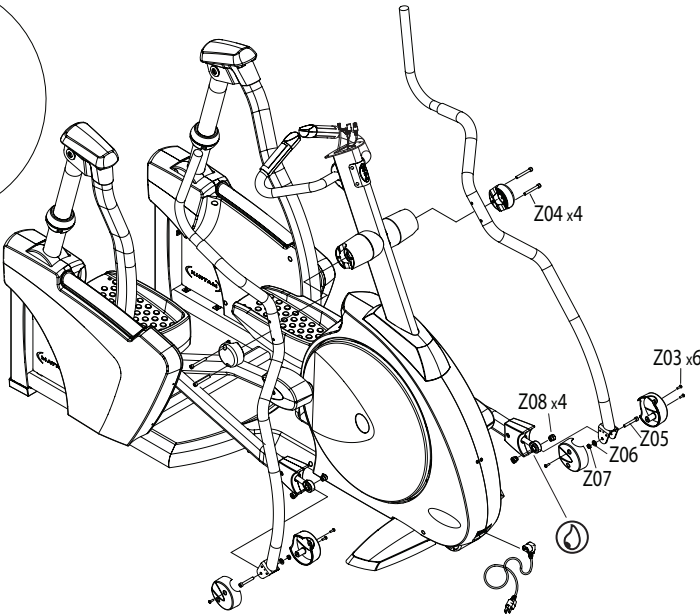
CHAPTER 9: A3X SPECIFICATIONS AND ASSEMBLY STEPS

9.3 A3x ASCENT TRAINER ASSEMBLY STEPS

STEP 1



STEP 2

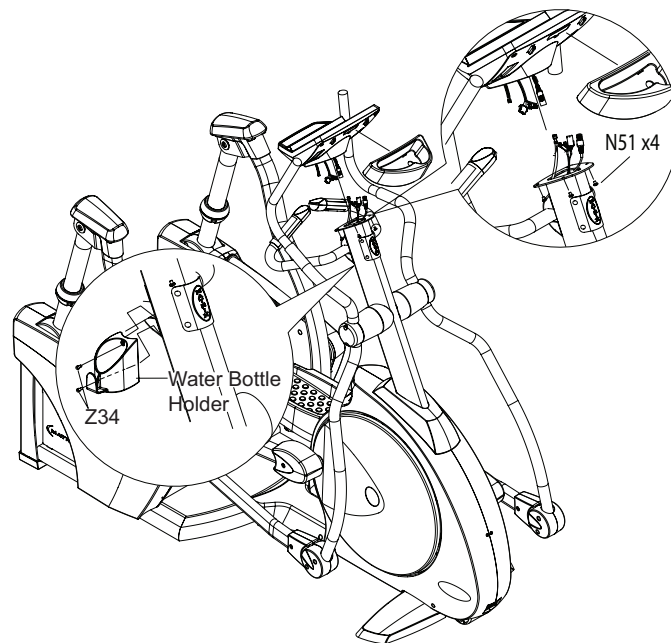


 Lightly grease

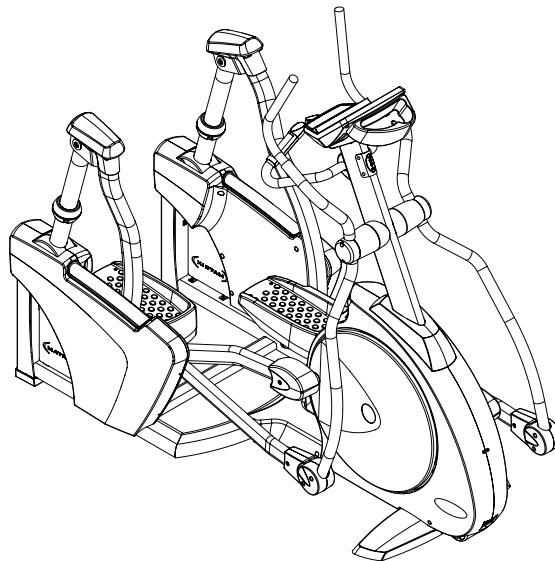
CHAPTER 9: A3X SPECIFICATIONS AND ASSEMBLY STEPS

9.3 A3x ASCENT TRAINER ASSEMBLY STEPS

STEP 3

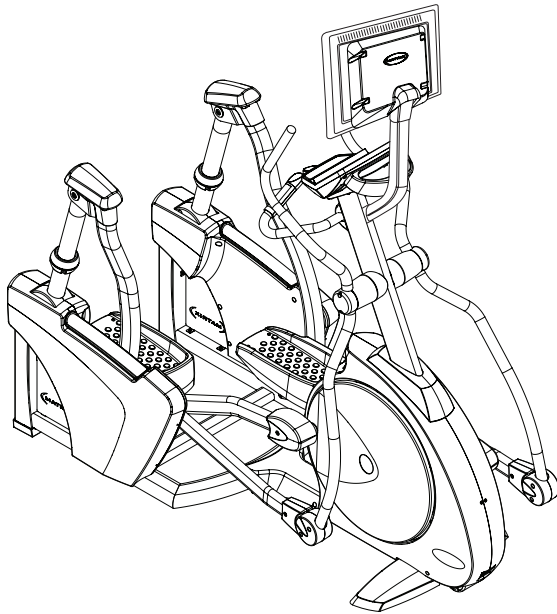


FINAL ASSEMBLY

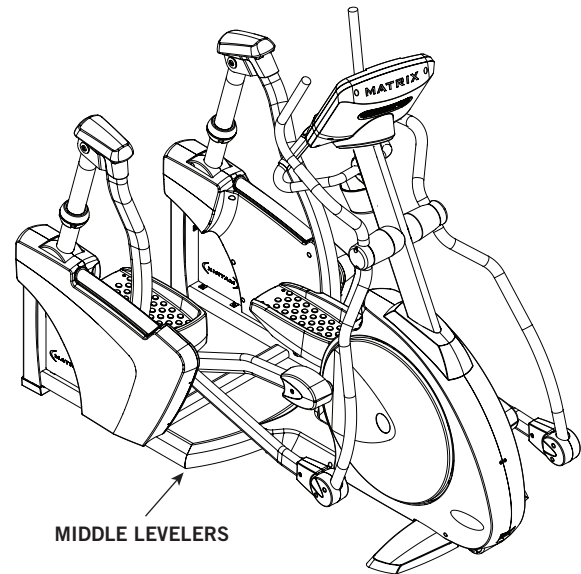


CHAPTER 9: A3X SPECIFICATIONS AND ASSEMBLY STEPS

9.4 A3x OPTIONAL ENTERTAINMENT ACCESSORY



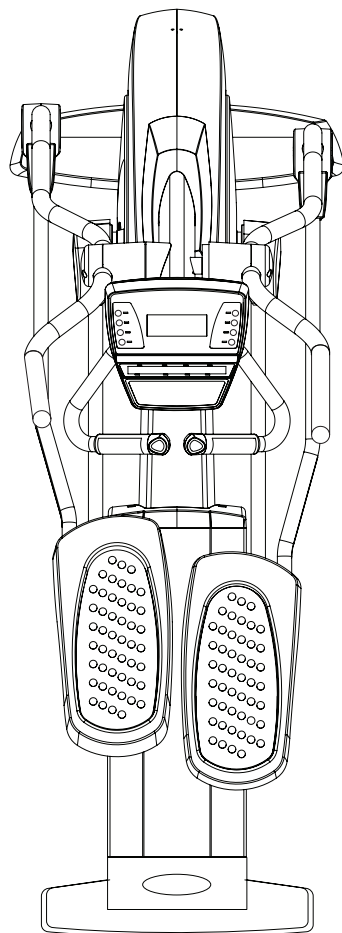
9.5 A3x LEVELING THE UNIT



When leveling the Ascent Trainer, make sure that the middle levelers (shown above) are completely tightened and flush with the bottom of the machine. Use only the front two levelers to balance out the machine.

CHAPTER 10: E3Xc SPECIFICATIONS AND ASSEMBLY STEPS

10.1 E3xc ELLIPTICAL SPECIFICATIONS



SPECIFICATIONS

Product Name	E3xc-01
Foot Print	inches = 75"L x 29"W x 71"H cm = 182.9 x 215.9 x 73.6
Weight	281 lbs 158.8 kg
Max User Weight	400 lbs = 181 kg
Stride Length	21"
Frame Construction	Steel
Self-Powered	Yes
Resistance Type	Generator
Resistance Levels	25
Dual Action	Yes

PROGRAMS

One Button Quick Start	Yes
Random (20 profiles)	Yes
Target Heart Rate	Yes
Interval	Yes
Constant Watts	Yes
Rolling	Yes
Fat Burn	Yes
Fit Test	Yes

PEDAL

Self Leveling	Yes
Pedal Size	16" x 7"
Distance Between Pedals	3.0"

HEART RATE

Wireless Heart Rate	Yes
Contact Heart Rate	Yes

ENTERTAINMENT READY

Coaxial Cable Connection	Yes
AC TV Power Connection	Yes
Monitor Mount	Yes

10.2 E3xc ELLIPTICAL TRAINER FASTENERS

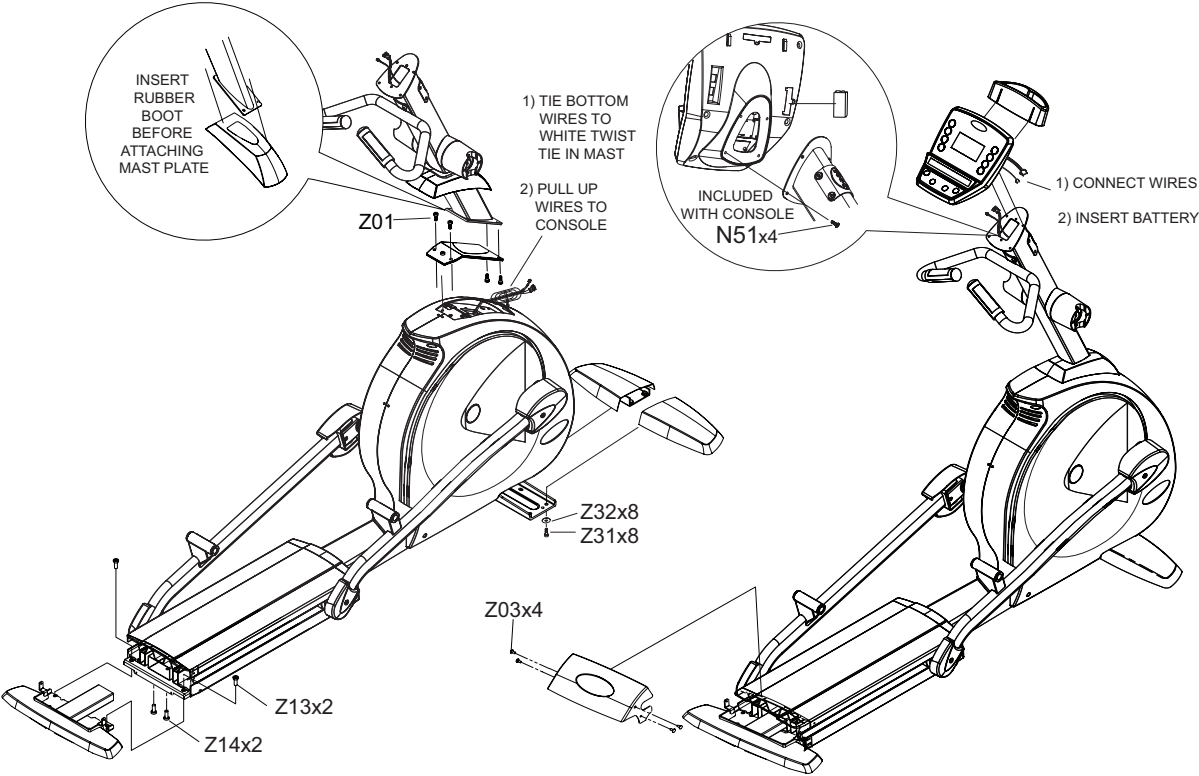
FASTENERS				
REFERENCE	SKETCH	DESCRIPTION	QUANTITY	PACKAGE COLOR
Z31		SOCKET HEAD CAP SCREW(M8x20L)	8	PINK
Z32		WASHER(Ø8.4xØ15.5x1.6t)	8	PINK
Z13		SOCKET HEAD CAP SCREW(M10x15L)	2	RED
Z03		BUTTON HEAD MACHINE SCREW(M5x10L)	4	WHITE
Z14		SOCKET HEAD CAP SCREW(M8x20L)	2	RED
Z01		SOCKET HEAD CAP SCREW(M8x15L)	8	GREEN
Z34		SOCKET HEAD CAP SCREW(M8x25L)	2	BLUE
Z01		SOCKET HEAD CAP SCREW(M8x15L)	6	ORANGE
Z02		WAVE WASHER(Ø20.5xØ29x1.5t)	2	ORANGE
Z08		WAVE WASHER(Ø20.7xØ29.1x0.3t)	2	ORANGE
Z09		FLAT HEAD SOCKET SCREW(M5x12L)	8	BLACK
E42		CONNECT PLATE	2	ORANGE
Z03		SOCKET HEAD CAP SCREW(M5x10L)	6	YELLOW
Z05		SOCKET HEAD CAP SCREW(M8x55L)	2	YELLOW
Z06		WASHER(Ø8.2xØ16x1.0t)	2	YELLOW
Z07		NYLON NUT(M8x1.25P)	2	YELLOW
Z30		AXLE	4	YELLOW
Z04		SOCKET HEAD CAP SCREW(M8x65L)	4	YELLOW
Z51		BUTTON HEAD MACHINE SCREW(M5x8L)	4	

CHAPTER 10: E3Xc SPECIFICATIONS AND ASSEMBLY STEPS

10.3 E3xc ELLIPTICAL ASSEMBLY STEPS

STEP 1

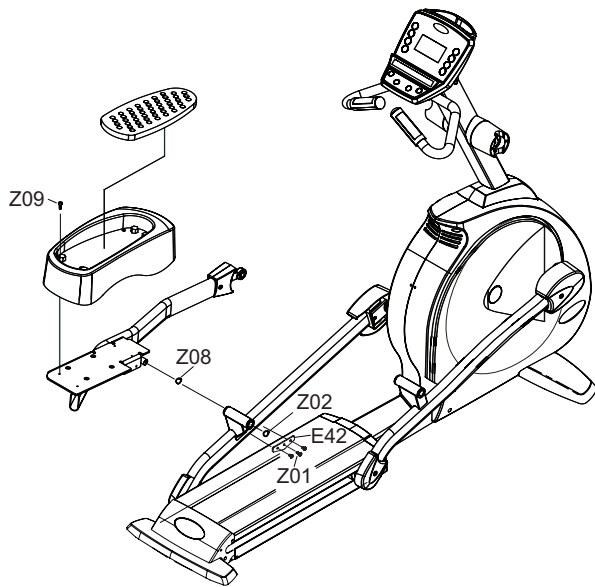
STEP 2



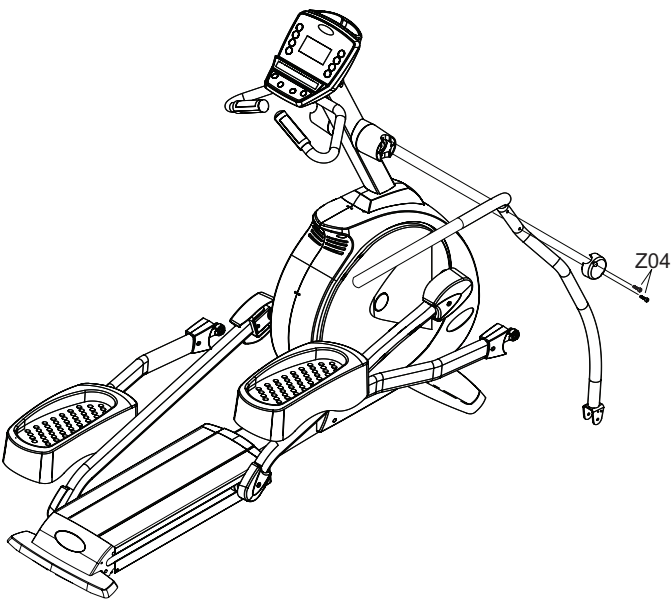
E3Xc • ELLIPTICAL

10.3 E3xc ELLIPTICAL ASSEMBLY STEPS

STEP 3

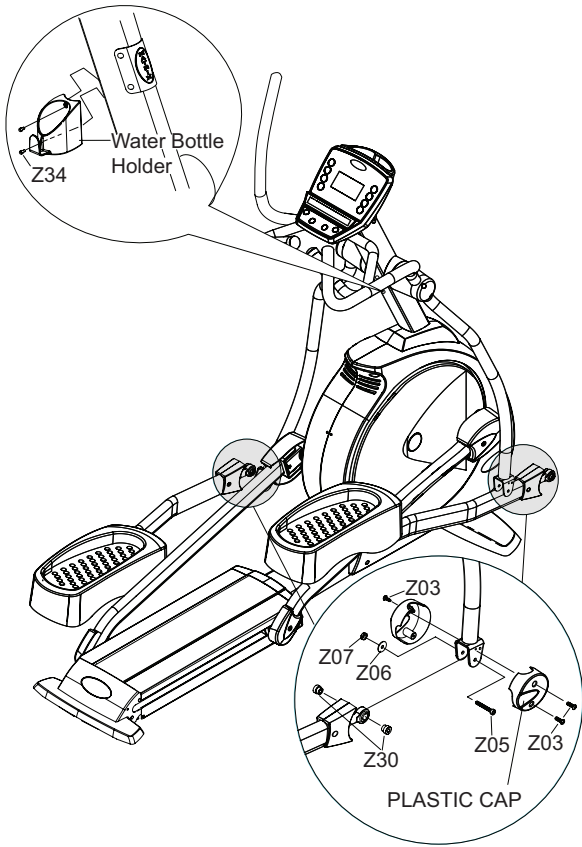


STEP 4

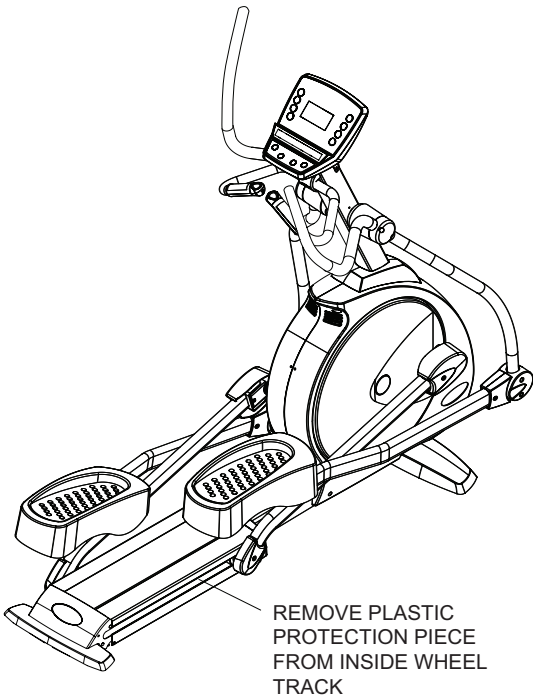


10.3 E3xc ELLIPTICAL ASSEMBLY STEPS

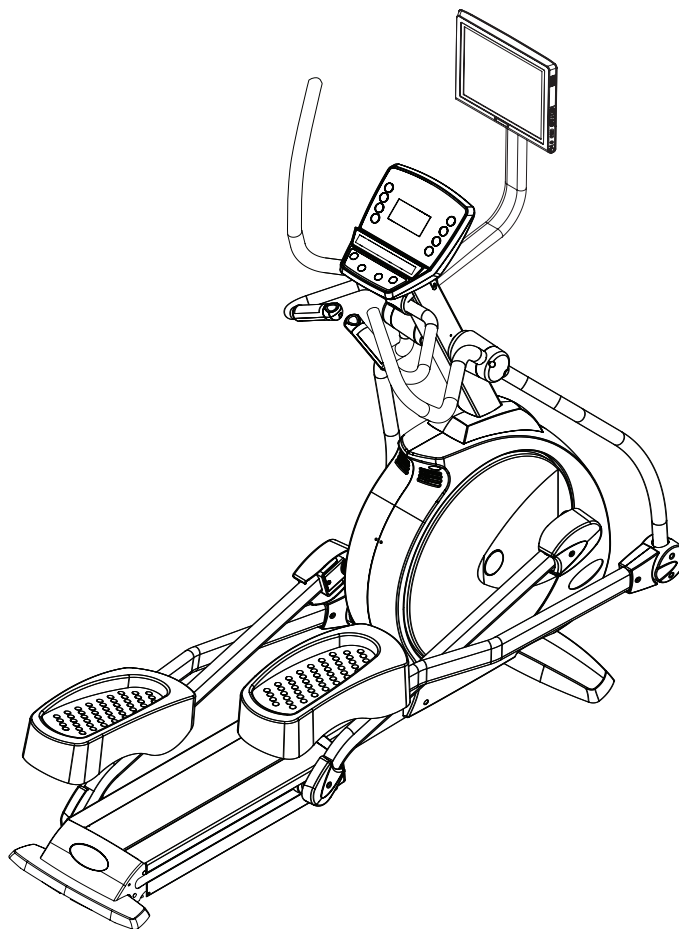
STEP 5



FINAL ASSEMBLY



10.4 E3xc OPTIONAL ENTERTAINMENT ACCESSORY



This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



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